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THE SCIENTIFIC AMERICAN
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By RUFUS PORTER.

Each number of this paper is furnished with from two to five ORIGINAL ENGRAVINGS, many of them elegant, and illustrative of NEW INVENTIONS, SCIENTIFIC PRINCIPLES, and CURIOSITIES; and contains as much Interesting Intelligence as six ordinary daily papers, consisting of notices of the progress of Mechanical and other Scientific Improvements,—American and Foreign Inventions Catalogues of American Patents,—Scientific Essays, illustrative of the principles of the Sciences of MECHANICS, CHEMISTRY, and ARCHITECTURE;—Instruction in various Arts and Trades;—Curious Philosophical Expements;—Miscellaneous Intelligence, Poetry and, occasionally, Music.

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TERMS OF ADVERTISING.—For 10 lines, or less, 50 cents for the first, and 12 1-2 cents for every subsequent insertion.

Barlow and the Quaker.

A traveller wended the wilds among,
With a purse of gold and a silver tongue:
His hat it was broad, and all drab were his clothes,
For he hated high colors—except on his nose;
And he met with a lady, as the story goes.

The damsel she cast him a merry blink,
And the traveller was nothing loth, I think:
Her merry black eye beamed her bonnet beneath,
And the quaker he grinned, for he'd very good teeth,
And he asked, "Art thou going to ride on the heath?"

"I hope you'll protect me, kind sir," said the maid,
"As to ride this heath over I'm sadly afraid;
For robbers, they say, here in numbers abound,
And I wouldn't for any thing I should be found,
For, between you and me, I have five hundred pound."

"If that is thine own, dear," the quaker said,
"I ne'er saw a maiden I sooner would wed;
And I have another five hundred just now,
In the padding that's under my saddle bow,
And I'll settle it all upon thee, I vow!"

The maiden she smiled, and the rein she drew.
"Your offer I'll take—though I'll not take you."
A pistol she held at the quaker's head—
"Now give me your gold—or I'll give you my lead;
'Tis under the saddle, I think you said."

The damsel she ripped up the saddle bow,
And the Quaker was ne'er a quaker till now:
And he saw by the fair one he wished for a bride
His purse drawn away with a swaggering stride,
And the eye that looked tender now only defied.

"The spirit doth move me, friend Broadbrim," quoth
"To take all this filthy temptation from thee, [she,
For mammon deceives—and beauty is fleeting;
Accept from thy MAIDEN a right loving greeting,
For much doth she profit by this quaker's meeting."

"And hark, jolly quaker, so rosy and sly,
Have righteousness more than a lass in your eye,
Don't go again peeping girl's bonnets beneath,
Remember the one you met on the heath,
Her name's Jimmy Barlow—I tell to your teeth!"

"Friend James," quoth the quaker, "pray listen to me,
For thou canst confer a great favor, d'ye see;
The gold thou hast taken is not mine, my friend,
But my master's—and truly on thee I depend
To make it appear I my trust did defend."

"So fire a few shots through my clothes here and there,
To make it appear 'twas a desperate affair."
So Jim he popped through the skirts of his coat,
And then through his collar—quite close to his throat;
"Now once through my broadbrim," quoth Ephraim,
"I vote."

"I have but a brace," said bold Jim, "and they're spent,
And I won't load again for a make-believe rent."
"Then," said Ephraim, producing his pistols, "just give
My five hundred pounds back—or sure as you live,
I'll make of your body a riddle or seive."

Jim Barlow was diddled—and though he was game,
He saw Ephraim's pistol so deadly in aim, [pers,
Then he gave up the gold, and he took to his scra-
And when the whole story got into the papers,
They said that the thieves were no match for the quakers.

ON MISS ANNE BREAD.

"Toast any girl but her," said Ned,
"With every other flutter;
I'll be content with ANNE BREAD,
And wont have any *but her*."

WITTY PRISONER.—Not long since, the Chaplain of one of our State Prisons, being engaged in preparing a table of the causes of crime, held the following dialogue with a prisoner:

Chaplain.—Well what brought *you* here?

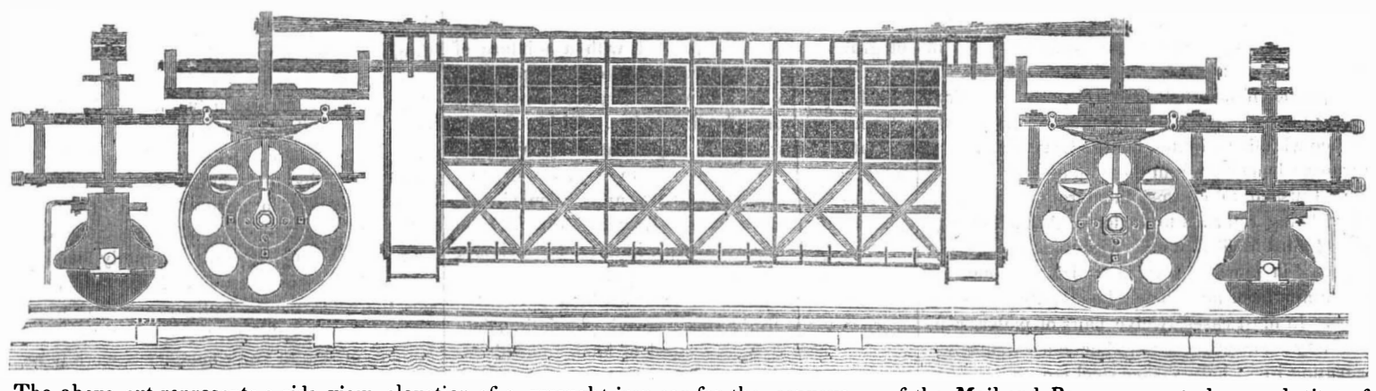
Prisoner.—The Sheriffs, sir.

Chaplain.—But I want to know if *liquor* had anything to do with it?

Prisoner.—O yes sir—*they were both drunk!*

Whether this prisoner was less unfortunate in the character of his escort than others of his class, is more than we know.

LEWIS'S WROUGHT-IRON PASSENGER-CAR.



The above cut represents a side view elevation of a wrought-iron car for the conveyance of the Mail and Passengers; to be a substitute for cars made of wood. It is peculiarly adapted to the use of large burthen wheels: say six feet diameter—which are attached to the outside of the ends of the car, allowing the car to run near the track. The advantages of the iron car are much superior to those of wood. They consist of the following:—greater strength and durability; less weight; less expense in the construction, both in labor and material; greater safety to passengers, and less expense to keep it in repair.

The greatest objection to the use of the wooden car is the expense of keeping it in repair; this expense in three years' time of service generally amounts to about the first cost of the car. But the cost of our proposed iron car, in that time, would be comparatively small,—perhaps nothing—and in ten years' service would not exceed ten per cent. on the original cost. Should an increase of speed be desirable, it can be attained only by an increased diameter of the wheels; which will give less friction to the axle, less power to propel them, less damage to the track and machinery, and more ease and comfort to the passengers. The Safety-Guide wheels, three feet diameter, are in front and rear of the large wheels, and are a sure guarantee of safety against running off the track in all ordinary, as well as in most extraordinary cases, where the cars, without them, would be thrown or jumped off the track. Cars being thus constructed, in connection with the safety-guide wheels in front of the locomotive, it would be almost a matter of impossibility to throw them off the track.

These safety-guide wheels may be attached, at a small expense, to the ordinary truck of passenger cars, which, in addition to those in front of the locomotive, would render absolute safety to the whole train, against all danger of being thrown off the track; thus giving the locomotive an opportunity, when occasion should require, of performing to its full power.

H. L. B. LEWIS.

REMARKS BY THE ED.—We find no occasion for letters of reference in explaining this engraving, since the principal peculiarities of the construction of the car are plainly shown. The car is constructed entirely of iron, and supported by four large wheels, each pair of wheels is placed at the extreme ends of the car; and the direction of each pair of large wheels is governed by a pair of small guide wheels, which are pressed down to the rails by a spring, on the principle described in No. 25 of this paper. A permanent bar projects from each end of the car body at the top, which is supported by a permanent elevated frame-work rising from the axles of the large wheels. It will be readily understood that the motion of the car, in passing curves, or irregularities in the road, will be more gentle and agreeable to passengers, in consequence of being mounted in this manner. The guide-wheels effectually prevent the possibility of leaving the track, and in case of an accidental concussion, the passengers will be comparatively much safer than they could be in a car made of breaking and splintering wood. We have heard no objection made to any part of this plan of construction, and have reason to believe it will be generally adopted on roads where great speed is required.

THE FAKIR AGAIN.—A Cincinnati paper says that a stranger stepped into a dry goods store on Fourth street, the other evening, and enquired for some blue ribbon. The polite clerk displayed the article, which was laid before the purchaser—who concluded to take it. As the attendant leaned over to measure the ribbon, a huge loaf of *brown bread* dropped from one side of his vest upon the counter! Somewhat alarmed, he started back, and a big *cocoa-nut* fell at his feet from the other side! Surprised and startled, he raised his hand to his forehead, and from the sleeves of his coat, *a stream of half-dollars* jingled out upon the floor. The clerk, dumb-founded, looked at the stranger—and but a single eye upon one side of his face graced his before pleasant countenance. He fell back against the shelves, and the next instant sprang towards his hat which lay near by, upon a pile of goods. As he was about to place his hand upon it, a grizzly grey cat sprang from the inside, and darted out of the door! With a single bound he cleared the counter, and yelled at the top of his lungs! Upon opening his jaws a tickling sentaion pervaded his mouth, and with a violent effort to expectorate, he blew out some half dozen yards of blue ribbon which streamed away towards the door like a Commodore's pennant! "I'll take the whole," said the stranger camly," when you've done that puffing, my friend." "Take it!" roared the clerk—"take it and go!" The stranger laid the money upon the counter, rolled up his ribbon very quietly himself, picked up his half dollars, and walked out.

"Did you know that customer?" asked the proprietor, who passed the stranger on the threshold.

"*Its the devil!*" roared the clerk. Oh no! replied the other, *that's the* FAKIR OF AVA!"

LAW ANECDOTE.—You have all heard of Counsellor Higgins. He was exceedingly adroit in defending a prisoner, and would sometimes almost laugh down an indictment for a small offence. A fellow (one Smith) being on trial for stealing a turkey, the counsellor attempted to give a good-humored turn to the affair:—"Why, gentlemen of the jury," said he, "this is really a small affair; I wonder any one would bring such a complaint into Court; if we are going on at this rate, we shall have business enough on our hands. Why, I recollect when I was in College that nothing was more common than to go out a foraging. We did not get the poultry too often in the same place, and there was no harm done, no fault found." Notwithstanding this appeal the jury convicted the prisoner. After the Court rose, one of the jury, a plain old farmer, meeting the Counsellor, complimented his ingenuity in the defence, "and now, Squire," said he, fixing a knowing look upon him, "I should like to ask you a question; which road do you take in going home, the upper or the lower?" "The lower," answered the Counsellor. "Well, then, it's no matter; I only wanted to observe that if you were going my way, I would just jog on before and lock up my hen house."

OLD JOHN ADAMS.—Mr. Webster visited Mr. Adams a short time before his death, found him reclining on a sofa, evidently in feeble health. He remarked to Mr. Adams—"I am glad to see you, sir, and hope you are getting along pretty well." Mr. A. replied in the following figurative language: "Ah, sir, quite the contrary. I find I am a poor tenant, occupying a house much shattered by time. It sways and trembles with every wind, and has, in fact, almost gone to decay; and what is worse, sir, the landlord, as near as I can find out, don't intend to make any repair."

BEGGAR MAKING IN ENGLAND.—Forty-five thousand seven hundred and sixty-nine acres of land are employed in the cultivation of Hops, and one million acres of land are employed to grow Barley, to convert into strong drink. According to Fulton's calculation if the land which is employed in growing grain for the above process of destruction, was to be appropriated to the production of grain for food, it would yield more than a four pound loaf to each of the supposed number of human beings in the world; or it would give three loaves per week to each family in the United Kingdom! If the loaves (each measuring four inches by twelve) were placed end to end, they would extend one hundred and sixty thousand two hundred and twenty-five miles; or they would more than describe the circumference of the globe six times. Besides forty millions bushels of barley, a considerable quantity of oats, rye, carrots, and potatoes, and even wheat, has been destroyed in making gin, whiskey, and English rum. The corn we waste in brewing and distilling would feed three millions of persons every year; and to make up for the waste, we send two millions of money to foriegners every year to buy corn."—*Eng. Paper.*

FULTON.—Fulton strained his mind to distraction with the idea that he could propel a vessel up the Hudson, by the mere force of steam, at the rate of four miles an hour—a large vessel—one that would carry a hundred men. He had a genius and it had worked like a steam engine in him; but when it had forced out of his mind this stupendous idea, his friends looked at him with fixed eyes, and then shook their heads sorrowfully, saying to each other, in a low voice,

"*What a pity that he is crazy!*"

In vain he protested he was not mad; and he went to France, and there, at a dinner-table with the Parissian nobility and aristocracy, when the wine had passed and softened the inequalities of rank, that bold and enthusiastic young man uttered his fanatical proposition. It sobered in a moment the current of conversation. All eyes were directed toward the young American at the foot of the table. Talleyrand set down his glass and said in a formidable tone of inquiry: "Do I understand you to say, that by the mere force of steam, you can propel a vessel containing 100 armed men, in a dead calm, at the rate of four miles an hour?"—"Yes," he replied, with a faith in his heart that steadied his voice before the French statesman. French politeness repressed the exclamation,—"What a pity that he is crazy!" but the man of one idea understood the shrugs of incredulity which greeted his reply.

EXCESSIVE CROWDING.—Mr. Farr has adduced a small portion of the East of London, containing a population in the ratio of 243,000 inhabitants to the square mile, as the greatest density attained in the heart of English cities; but according to Dr. Duncan, there is actually a district in Liverpool containing about 12,000 inhabitants crowded together on a surface of 460,000 inhabitants to the geographical square mile; and if we confine the calculation to a smaller portion of this district, but still comprising a population of 8000 (on 49,000 square yards) we shall find the inhabitants packed together in the proportion 657,963 to the square mile. In Nottingham, which is hemmed in by fields belonging to the freemen, it is stated by Mr. Hawksley, that 4,200 people dwell in a square of 220 yards on the side (46,400 square yds.) and that the average area to each inhabitant throughout the town, including the streets is about eighteen square yards.—*Exch.*

OLD AND NEW STYLE.—The Julian year, introduced by Julius Cæsar, 45 years before the birth of Christ, made every fourth year, without exception, a leap year. This, however, was an over correction; for it was supposed the length of the tropical year to be 655¼ days, which is too great, and induces an error of 7 days in 900 years. Accordingly, as early as the year 1414, it was perceived that the equinoxes were gradually moving from the 21st of March and September, where they ought always to have fallen had the Julian year been exact. A new reform of the calendar was thus required; and it took place under the popedom of Gregory XIII., by the omission of ten nominal days after the 4th of October, 1582, so that the next day was called the 15th and not the 5th. This change was immediately adopted in all Roman Catholic countries, but tardily in the countries of protestantism.

In England, the change of style, as it was called, took place after the 2d day of September, 1752, eleven nominal days being then struck out; so that the last day of Old Style being the 2d, the first of the new style, (the next day,) was called the 14th instead of the 3d. The same legislative enactment which established the Gregorian year in England in 1752, shortened the preceding year, 1751, by a full quarter. Previous to that time the year was held to begin with the 25th of March, and the year 1751 accordingly did so; but that year was not suffered to run out, being supplanted on the first of January by the year 1752, which it was enacted should commence on that day.

Russia is now the only country in Europe, in which the Old Style is still adhered to, and the difference between the other European and Russian dates amounts, at present, to about two weeks.

THE CONSISTENT NEGRO.—A gentleman cooper called upon negro, who owns a fine farm wished to purchase some timber. Our 'colored' friend inquired for what purpose he wanted it. He received for answer, "I have a contract for so many whiskey barrels." "Well sir," was the prompt reply, "I have the timber to sell and want the money, but no man can purchase a single stave or hoop-pole, or a particle of grain of me for that purpose." Of course Mr. Cooper was not a little "up in the back" to meet such stern reproof—got mad, and called him a "nigger." "That is very true," mildy replied the darkie; "it is my misfortune to be a negro; I can't help that, but I can help selling my timber to make whiskey barrels, and I mean to do it."

A VERY MEAN BREACH OF PROMISE.—Fanny McAuley recently recovered five hundred dollars damages against one Roderic C. Phippin, of Crown Point, as some compensation for a breach of promise on his part to commit matrimony with the aforesaid Fanny. He had courted her for three tedious years, and borrowed a dollar of the expected bride's own brother to pay the wedding fee and went off the same night and *married another woman* paying the clergyman's perquisite, for ought we know, with that very dollar! Now, we insist upon it that this is the most atrocious trifling with woman's love, that is any where recorded, and the fellow who was guilty of it, ought—*by all means, to pay that dollar.*

JOHN JACOB ASTOR.—The following is given as the estsmate of Mr. Astor's immense wealth, in a book of the "Rich Men of New York." It says "that those knowing his affairs best, place it at $30,000,000, and some as high even as $50,000,000. His income at a moderate estimate, must be $2,000,000 a year, or $166,000, a month; which is about $41,500 a week; $7,760 a day; $240 an hour, and $4 a minute.

PATENT LAWS.

(Continued from No. 26.)

SEC. 8. And be it further enacted, That whenever application shall be made to the Commissioner for any addition of a newly discovered improvement to be made to an existing patent, or whenever a patent shall be returned for correction and reissue, the specification of claim annexed to every such patent, shall be subject to revision and restriction, in the same manner as are original applications for patents; the Commissioner shall not add any such improvement to the patent in the one case, nor grant the re-issue in the other case, until the applicant shall have entered a disclaimer, or altered his specification of claim in accordance with the decision of the Commissioner; and in all such cases, the applicant, if dissatisfied with such decision, shall have the same remedy, and be entitled to the benefit of the same privileges and proceedings, as are provided by law in the case of original applications for patents.

SEC. 9. And be it further enacted, (any thing in the fifteenth section of the act, to which this additional, to the contrary notwithstanding,) That whenever, by mistake, accident, or inadvertence, and without any wilful default or intent to defraud or mislead the public, any patentee shall have in his specification claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the first and original inventor, and shall have no legal or just right to claim the same, in every such case the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and bona fide his own: *Provided*, It shall be a material and substantial part of the thing patented, and be definitively distinguishable from the other parts so claimed without right as aforesaid. And every such patentee, his executors, administrators, and assigns, whether of a whole or of a sectional interest therein, shall be entitled to maintain a suit at law or in equity on such patent for any infringement of such part of the invention or discovery as shall be bona fide his own as aforesaid, notwithstanding the specification may embrace more than he shall have any legal right to claim. But in every such case in which a judgment or verdict shall be rendered for the plaintiff, he shall not be entitled to recover costs against the defendant, unless he shall have entered at the Patent Office, prior to the commencement of the suit, a disclaimer of all that part of the thing patented which was so claimed without right:—*Provided, however*, That no person bringing any such suit shall be entitled to the benefits of the provisions contained in this section, who shall have unreasonably neglected or delayed to enter at the Patent Office a disclaimer as aforesaid.

SEC. 10. And be it further enacted, That the Commissioner is hereby authorized and empowered to appoint agents in not exceeding twenty of the principal cities or towns of the United States, as may best accommodate the different sections of the country, for the purpose of receiving and forwarding to the Patent Office all such models, specimens of ingredients and manufactures, as shall be intended to be patented or deposited therein, the transportation of the same to be chargeable to the patent fund.

SEC. 11. And be it further enacted, That instead of one examining clerk, as provided by the second section of the act to which this is additional, there shall be appointed, in manner therein provided, two examining clerks, each to receive an annual salary of fifteen hundred dollars; and, also, an additional copying clerk, at an annual salary of eight hundred dollars. And the Commissioner is also authorized to employ, from time to time, as many temporary clerks as may be necessary to execute the copying and draughting required by the first section of this act, and to examine and compare the records with the originals, who shall receive not exceeding seven cents for every page of one hundred words, and for drawings and comparison of records with originals, such reasonable compensation as shall be agreed upon or prescribed by the Commissioner.

SEC. 12. And be it further enacted, That whenever the application of any foreigner for a patent shall be rejected and withdrawn for want of novelty in the invention, pursuant to the seventh section of the act to which this is additional, the certificate thereof of the Commissioner shall be a sufficient warrant to the Treasurer to pay back to such applicant two-thirds of the duty he shall have paid into the Treasury on account of such application.

SEC. 13. And be it further enacted, That in all cases in which an oath is required by this act, or by the act to which this is additional, if the person of whom it is required shall be conscientiously scrupulous of taking an oath, affirmation may be substituted therefor.

To be continued.

POETRY IN PROSE.—It is a peculiarity of Dickens' style that it often runs along (apparently unobserved by him) in perfect rhyme, and approaching also a perfect metre. We find the following specimen in his new work, 'The Cricket on the Hearth:'

"It is a dark night, and the Kettle, and the rotten leaves are lying by the *way;* and above, all is mist and darkness, and below, all is mire and *clay;* and there's only one relief in all the sand and murky *air;* and I don't know that it is one, for it's nothing but a *glare* of deep and angry crimson, where the sun and wind *together*, set a brand upon the clouds for being guilty of such *weather;* and the wildest open country is a long, dull streak of *black;* and there's hoar frost on the finger-post, and thaw upon the *track;* and the ice it isn't water, and the water is'nt *free;* and you could'nt say that any thing is what it ought to *be.*"

A CURIOUS CALCULATION.—Noah's ark was longer than any North River steamboat by one half; taking the cubit at 22 inches, it was 547 feet long, 91 broad and 54 high, measuring, acording to Bishop Wilkins, 72,625 tons.

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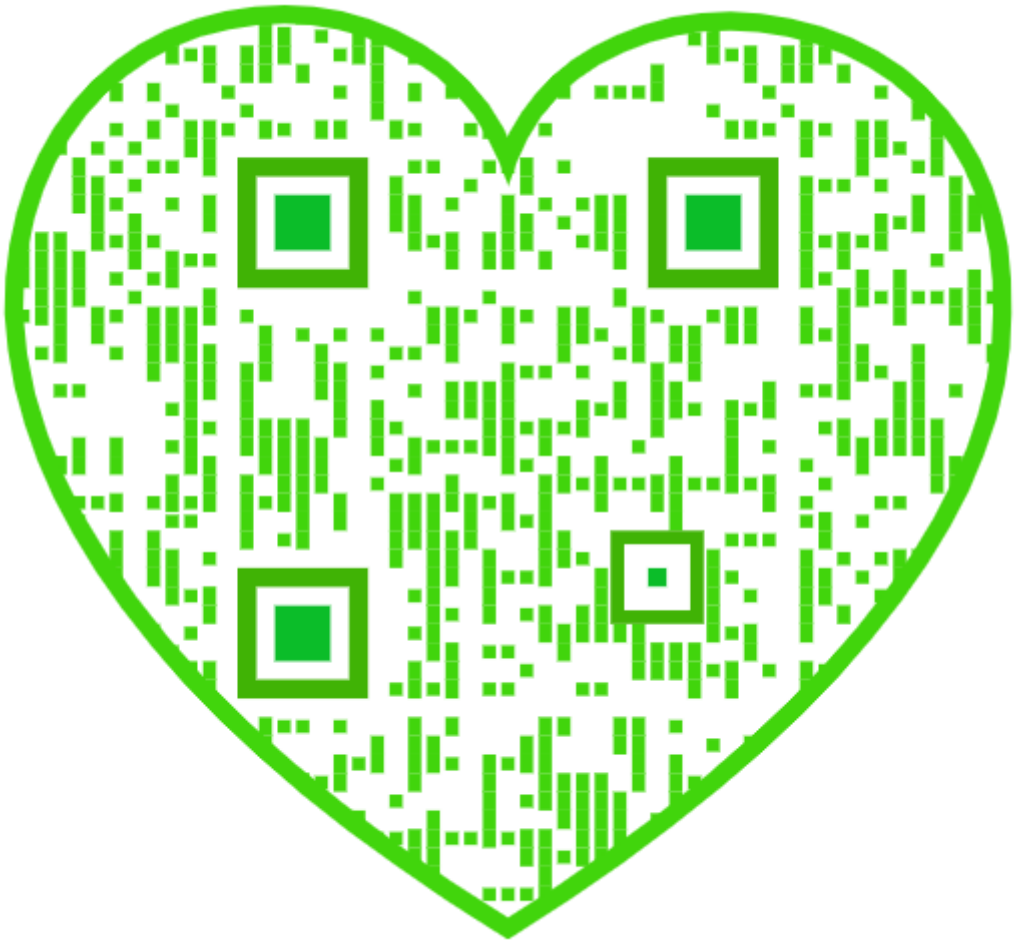
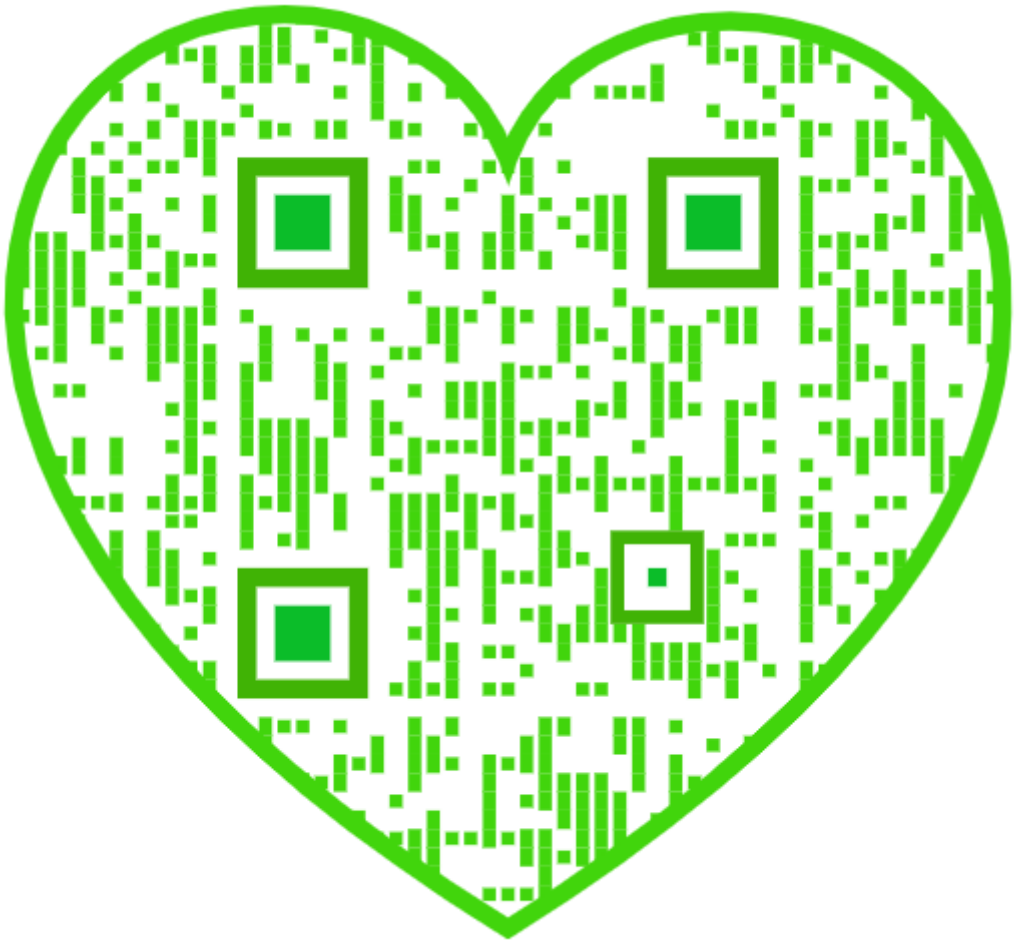




SCIENTIFIC AMERICAN

NEW-YORK, THURSDAY, MARCH 19.

POST MASTERS—Who receive this paper, will confer a special favor by mentioning the subject occasionally to scientific mechanics.

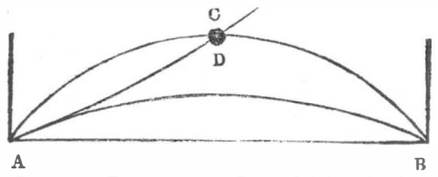
BACK NUMBERS.—We shall commence re-printing our early numbers next week, and shall forward them to those who have so requested: Others who wish to obtain them will please inform us early.

TO CORRESPONDENTS.—We have a great number of letters on hand, requiring information, &c., which we have not as yet found time to attend to. We shall endeavor to devote a day to that business very soon, and hope our friends will not be impatient.

OUR NEW MUSIC.—We have made some slight improvement in our new musical characters, and shall re-insert the scale in our next. We hope all our readers who regard music, will give attention to learn this scale, as we shall insert many new and excellent pieces, in the course of the volume; and we can assure them that it will be found as easy to sing or play music from these notes, as from those of the old system.

Science of Mechanics.

(Continued from No. 26.)



LAWS OF PROJECTION.—In explaining the theory of projections, no allowance will be made for atmospheric resistance: that must be an after consideration. In most cases the projection of liquids is subject to, and governed by the same laws, as that of solids. If a body—a ball for instance—is projected vertically upwards, it will require the same time to return, that is occupied in ascending: and the time required in ascending and descending, may be readily ascertained; also the extent of its projection, by having a given quantity of power applied. By a similar rule, the height of projection, and the power applied may be ascertained by the time occupied—the weight of the ball being known; or the power and time may be ascertained, by the height to which the ball is projected. A body in falling, will descend one foot in one-fourth of a second of time, and will quadruple the distance as often as the time is doubled; thus, four feet in half a second,—sixteen feet in one second, &c. Now, if a ball ascends by projection sixteen feet, it will require one second to ascend, and another to descend, making two seconds. If the weight of the ball is one lb., the power required to produce the projection will be equal to raising one lb. 16 feet:—16 lbs. one foot; or 64 lbs., three inches: therefore, if the force applied is continued but three inches, the pressure must be 69 lbs. If four times the power is applied, the ball will be projected 64 feet high, and the time occupied in ascending and descending will be four seconds. The velocity at the time of starting and at the termination of its descent, will be at the rate of 64 feet per second. To ascertain the height to which a projected ball has ascended, by the time of its absence, multiply one half of the time of the absence, in fourths of seconds, by itself: the product will be the height of its ascent in feet. For example, if the ball is absent four seconds, one half of the time is two seconds, which is eight fourths of a second: then 8 times 8 is 64 which is the height of its ascent in feet. To ascertain what force is required to project a ball to a specified height,—multiply the given height by the distance which the force is continued, and that product by the weight of the ball. For example, if a ball weighing four lbs. is to be projected to the height of 64 feet, and the force is to be applied for the space of three inches, being multiplied by 4 to make one foot; and 4 being multiplied by 64 makes 256; this product being multiplied by 4—the weight of the ball,—gives 1024 as the required force When a ball is projected obliquely so as to form a curve,—as from A to B in the diagram,—the velocity of the ball will be retarded by gravity, during the first half of its journey; and accelerated by the same force, and in the same proportion during the other half. If it be projected at an inclination of 45 degrees with the horizon, and with sufficient force to elevate it 16 feet at its highest altitude, C, it will have performed its journey in two seconds; and at every point of its progress, will be directly under the point at which it would have been if it had kept on a direct course without having been affected by the force of gravity. In other words, its horizontal progress will be uniform; and at every point of time during its progress, it will be just as far below the line of direct inclination, as it would have fallen in the same time perpendicularly. Therefore, knowing the velocity with which a ball is projected, the time required for its arrival at any point in its progress, may be readily calculated; also its vertical elevation at any point in its horizontal progress. For example, if a ball is projected from A, in the direction of B, and with a velocity of 100 feet per second, its elevation at C, would have been, as we shall suppose, 32 feet, and its distance from A 100 feet; thus of course it would require one second of time to arrive at D,—a point directly under C,—and having fallen 16 feet below the direct line of projection, would be at this point 16 feet high, and will arrive at B at the end of two seconds. Thus the distance by direct line from A to B, may be calculated by the ordinary *square rule* of surveying, which we need not here insert.

(To be continued)

DEFINITION OF "DOZE."—A short nap enjoyed by many people after dinner on a week day, and after the text on a Sunday.

Galvanism.

Continued from No. 26.

ELECTRO-PLATING WITH SILVER.—In the ordinary process of electro-plating, a simple contact of the article with the negative wire is sufficient, though it be but a wire-hook suspended from a wire cross-bar: but in more difficult branches of silver-plating, it is important to have the connections consist of a more perfect contact of surfaces. Where two wires are connected, the ends should be flattened and filed bright, and firmly lashed together; or if a wire-hook is to be connected to a wire bar, the hook should be flattened, and bent up close enough to fit tight on the straight wire; and the connection between the wires and the article in the process must also be perfect. If articles consisting of pewter or britannia are to be plated with silver, they should be first dipped in a solution of potash, and worked in water, and then immersed in dilute muriatic acid for a few seconds, and again rinsed in water and immediately connected to the negative wire, and put into the font of silver solution. The solution, for this purpose, should be stronger than is required for other metals, containing nearly a dollar of silver to a quart of the solution; and the battery used must consist of eighteen pairs of plates connected consecutively. The articles should be taken out of the solution within a minute, or as soon as they become whitened with the silver and rinsed in water, and rubbed with a piece of buff-leather, to ascertain whether the silver adheres firmly to the surface: if it does not, the article must be again immersed in the muriatic acid: but there will be no occasion for this repetition if the article is well cleansed at the first. During the process the articles must be frequently brushed with fine whiting, being always first rinsed in water, when taken from the font, and again, after being brushed, to cleanse them from the whiting before being returned to the font. Articles of iron or steel must be filed or otherwise made bright, and immersed in muriatic acid, in which they may remain a minute or more before being put into the solution. In most cases, twelve pairs of plates, consecutively connected and in full action, are sufficient for plating iron; but polished steel requires a more intense current. A small quantity of copper, mixed with the silver, is rather an advantage than otherwise in plating iron with silver. After the silver foundation is firmly fixed on the articles, the process may be finished in an ordinary silver solution, and with a four-pair battery. In the process of plating steel wires for pianofortes, the wire should be slowly drawn horizontally through a long font containing the solution, passing through a perforated cork at each end, and being kept in connection with the battery by passing between two metallic plates which are connected to the negative wire. Silver-plated articles in general, should be washed with a solution of soap in water, and dried by being rubbed with boxwood saw-dust. The articles should be taken from the font, or adjusted by means of wooden hooks or forceps, as the cyanide solutions are injurious to the hands. The subject of electro-plating is concluded.

To be continued.

Illustrations of Chemistry.

(Continued from No. 26.)

PRECIPITATION.—When any solid substance is perfectly dissolved in an acid, or other liquid, the solution is transparent, and generally colorless. If another solid body be added to the solution, and the acid has a greater affinity for it, than it has for that which is already held in solution, it lets go the first which is thereby precipitated, and generally falls to the bottom of the liquid in the form of an impalpable opaque powder. It also sometimes happens that when an acid of a different kind is added to a solution, the added acid combines with the substance in solution, and precipitates it in an opaque form. There are also many cases in which a body held in solution is rendered opaque so far as to produce dense, and sometimes brilliant and beautiful colors, but yet without falling to the bottom: this however, also comes under the term of "precipitation."

EXPERIMENTS.—To a solution of gold in nitro-muriatic acid, add some filings of copper: the copper will be dissolved, and the gold precipitated.

To the solution of copper produced in the last experiment, add pearlash or magnesia, and the copper will be precipitated.

Dissolve or slake an ounce of lime in a pint of water: when it has remained at rest an hour, pour off the clean part. To this clear lime water, add the least quantity of carbonic acid in any form, or even blow into it with your breath, through a pipe, and the lime which is held in solution, will be instantly precipitated in dense white clouds, which will settle at the bottom, and prove to be pure carbonate of lime, or chalk.

Dissolve marble in muriatic acid: to the solution add sulphuric acid, and the marble will be precipitated in the form of sulphate of lime, or plaster of Paris.

To a solution of iron in sulphuric acid or—which is the same thing—a solution of copperas in water, add an infusion of nut-galls: the gallic acid will instantly combine with the iron of the solution, and produce a black precipitate, so dense as to be used for writing ink.

Take a sheet of paper, and with a hair pencil, stripe it alternately with infusion of nut-galls, and solutions of saleratus and of prussiate of potash. These liquids being colorless, will not discolor the paper. When dry, stripe the paper cross-wise with a solution of copperas (sulphate of iron,) and you will have a beautiful plaid: the iron will have been precipitated black or purple brown, on the gallic stripes, and on the prussiate, a beautiful blue, and on the saleratus, a permanent yellow. This is easily performed, and affords an exceedingly interesting illustration of the principles of precipitation.

(To be continued.)

THE MAGNETIC TELEGRAPH.—A Worcester, Mass., paper states that, with the exception of seven or eight miles, a line of telegraph is complete between that place and New York. Of course it will be soon in operation.

The Art of Painting

Continued from No. 26.

LANDSCAPE PAINTING ON WALLS.—The engraving in our last number, represented a cultivated farm, with a variety of fields of different tints, and supposed to be occupied by various kinds of vegetation in progress; and we may now proceed to give some instruction on the subject of coloring the various fields, &c. There are various kinds and colors of earth, the imitation of which require different compounds of colors; but the most common ploughed fields, by a mixture of *stone-brown* (yellow ochre, venitian red, and black,) and sky-blue. The proportions of these may vary according to the distance, and an additional quantity of yellow ochre, red or white may be occasionally added, according to the fancy of the artist, or the soil of the country in which the work is applied. In most of the state of New Jersey, the earth has a deep reddish tint; while in a large section of Maine, the earth abounds with white clay, and is consequently very light-colored. The path-way of roads should be painted much lighter than ploughed lands, and sometimes nearly white, but slightly tinted and occasionally shaded with yellow ochre and stone-brown. Fields of growing oats are painted with a mixture of French green and white. Fields of barley or rye, nearly ripe, are painted with a mixture of two parts of white with one of yellow ochre. Fields of buckwheat in blossom, are represented by applying white with a bushing-brush, to a green ground. Fields of red clover require the application of rose-pink by the same process. Low lands, in which the butter-cup flower abounds, is imitated by a similar application of bright chrome yellow. There can be no scenery found in the world which presents a more gay and lively appearance in a painting, than an American farm, on a swell of land, and with various colored fields well arranged, and especially when the fruit trees are in blossom. A degree of consistency must be observed in painting, however, that objects belonging to different seasons may not appear in the same scene; but different seasons may, with full propriety, be represented on different parts of the same room. For instance, in one part may appear an orchard of various trees in blossom; in another part, fields of ripe grain, and trees loaded with fruit; and in another, a forest in the gay autumnal tints, of vermillion, orange, and olive colors interspersed. The shores of ponds, bays, and rivers are usually painted with stone-brown reduced with sky-blue according to the distance; but bright sandy beaches are often introduced with good effect, and are painted with white, slightly tinged with yellow ochre and venitian red. Small islands of beautiful appearance are sometimes represented by a convenient and simple process, and without any preparation of ground work. For this purpose, a piece of clap-board, or other similar piece of wood, about 20 inches long, and three inches wide, planed thin and straight at one edge, is provided and used. This safe-edge (which is also found very convenient for various other purposes in painting) is placed horizontally against the wall, with the thin edge upward, and on the line intended for the shore of the island. A bushing-brush charged with the tree-green color is applied to produce the semblance of tree-tops and bushes extending upward from the safe-edge, and extending horizontally according to the design; the position of the safe-edge being varied so that the two terminations of the island may be a little elevated, as shown in the engraving. A small streak of yellow green may then be drawn horizontally across the bushing, which will represent an open space, on which one or more cottages may be based. The stocks and branches of the trees, and the shore at the water's-edge may be drawn with a camel-hair pencil, and the water being shaded below, the island will appear romantic and complete.

To be continued.

ELECTRICAL PHENOMENON.—An account is given in Silliman's Journal, of a lady who at times became so electric that brilliant sparks spontaneously issued from the ends of her fingers whenever she approached any conductor of electricity, or attempted to take hold of the handle of a door, or other metallic substance; and this electrical state sometimes continued for months together. The lady enjoyed a high flow of spirits or animation during these seasons, but at other times was rather pensive. The phenomenon has not yet been fully explained nor accounted for.

A SCHOOL OF WHALES.—It is reported that during the late storm in Virginia, thirty-two whales, driven up York river "by stress of weather," were captured by the people of Yorktown. We should not object to have that number of shad, or even of sturgeons, caught up York River, but "*thirty-two whales*," is rather hard to swallow.

IMPROVED GUILLOTINE.—A Frenchman has invented and introduced a new guillotine which operates very genteely, and by a horizontal motion decapitates the culprit while in a standing position depositing the head in a box, and the body in a cart preparatory to its removal. The inventor should enjoy the benefit of the invention.

RATHER GRATIFYING:—to see from ten to seven teen different articles in an exchange paper, copied from one number of the Scientific American. Such an occurrence,—which, by the way, is not very uncommon,—while it compliments the latter, evinces correct judgment and good taste on the part of the editor who makes such selection. 'Tis ourself that says it.

SNOW IN THE STREETS.—In Liberty street, between Broadway and Greenwich streets, the snow remains three feet deep; but in such an uncouth, up-and-down condition, that no carriages nor sleighs attempt to pass over it. Probably July will give it a sweat.

Slavery.

We do deprecate slavery in all its forms. If any of our Southern friends should become alarmed by this caption, and commencement of an essay on the subject, they may learn in the sequel, that their system is not particularly alluded to, but that the evils of slavery prevails more extensively than people generally are aware of. Its prevalence is, in fact, so extensive, that it is difficult to decide what class of slaves to begin with. There was, in ancient times, a class of people who were accustomed to boast of their liberty; but of whom it was very properly said, that "while they promise you liberty, they themselves are the servants (slaves) of sin." —It is admitted by all, that the extent of the evil accompanying slavery in any form, depends much on the character of the master or slave-holder; and the expression "servants of sin," has precisely the same signification as "slaves of satan" or "of the devil." And it is hardly to be expected that the character of modern human slave-holders should be any worse than that one. This expression is partly explained by another, that "he that committeth sin is the servant of sin;" for "by whom a man is overcome, of the same is he brought into bondage." Yet there is no doubt that very many of those who habitually, and without concealment, indulge in such practices as are by the Sacred Scriptures condemned as sinful, would think it a hard compliment to be told personally, that they were slaves of the devil. To accommodate their self-esteem, therefore, the *points* of the divine word of truth is turned aside. But there are certain branches or species of slavery which are peculiarly tyrannical, and of which we would speak more specifically. To say nothing of the poor laborers, who are harshly driven and poorly paid by their employers, the middling, or working classes in general often enslave themselves to many useless and pernicious customs, which have been, and are constantly being introduced by the more wealthy. Especially in our cities, there are thousands, the proceeds of whose business is amply sufficient to support themselves and families in health and competence, were it not for their vain and foolish conformance to the various needless and useless fashions, in furniture, dress, and style of living; fashion and style which, so far from being requisite or conducive to either health, intelligence, or happiness, often ruin the naturally healthy constitution, producing dyspepsia and consumption and substitute nonsensical etiquette, vitiated theatrical taste, and pernicious romantic sentiment in place of rational intelligence; and continual chagrin and anxious embarrassment in place of happiness and contentment. This is a species of slavery, exceedingly prevalent, and none the less *evil* on account of its being voluntary. Others enslave themselves to all the arts and schemes of avarice, under an unsatiable thirst for gain,—possession of the wealth of this world,—and devote their whole lives to this pursuit, without the possibility, or even an apparent desire of enjoying the wealth thus acquired; and at last leave it to be squandered by unthankful knaves. But those who are rich by inheritance, or become so at an early age, are in general slaves, of all others, the most cruelly tantalized, restricted and abused. There is not a day-laborer but enjoys more actual liberty, than a majority of those who possess wealth sufficient to associate in the first fashionable circles. Such dire slaves are they to etiquette, fashion, and custom, that they are not allowed the privilege of consulting either health or comfort in their diet, dress, exercise or rest.—They are required to wear unfitting harnesses, by which even their respiration is restrained, and their limbs cramped: and to persevere in the dire drudgery of fashion during hours in which nature requires sleep and rest; and not only restrained from free, honest, natural, and instructive conversation, but are actually required to lie and dissemble, professing what they do not feel nor believe; and often rejecting what they love or desire. Even the most pleasing, innocent, and rational amusements and recreations are denied them, on the ground of their being unfashionable or undignified. Yet for all this pain and labor, they receive no compensation of pleasure, but merely escape the dreaded punishment of the senseless ridicule of their fellow slaves. They are, in fact, downright slaves to pride, under the most unreasonable and whimsical task-masters—fashion and custom. But "Wisdom is justified by her children," and none who are truly wise will so cheaply sacrifice the precious liberty which the Divine Author has given them to enjoy.

BRITTANIA OR PRINCE'S METAL.—This alloy when properly prepared, is one of the most useful, and beautiful in common use. In name it is often very improperly confounded with *block tin*, a metal which forms one of the principal ingredients of the genuine *Brittania*, although *alone*, quite a different material. A most excellent quality of this article is a compound of the proportion of 3½ cwt. of best block tin; 28 lbs. of antimony; 8 lbs. of copper, and 8 lbs. of brass. It takes a high polish, and does not readily tarnish; when kept perfectly bright it has great beauty, and approaches in lustre to silver. There are various qualities of Britannia metal, arising from the introduction of lead into some of it. The principal seat of this manufacture is at Sheffield,—*N. Y. Farmer & Mech.*

Most of the ware in use in this country, which passes under the name of *Brittania*, is manufactured at Taunton, Mass., though a considerable business is done in that line at Southington, and other places in Connecticut. ED.

MORE FACTORIES.—A correspondent of the Boston Atlas says that two individuals have purchased the site at the Falls of the Potomac, in the county of Fairfax, fifteen miles from Washington, and near the line of the Chesapeake and Ohio canal, for $110,000. The water-power to be had there is estimated to be capable of driving 800 factories.

ALARM.—The settlers on the Missouri river have evinced serious alarm on the discovery that beavers have built their dams several feet higher than they have been known to do before; and this is regarded as an omen of an unprecedented freshet on that river.

VARIETY

About two hundred young ladies came up from old Plymouth to Boston, a few days since, to attend an oratorio of the Handel and Haydn Society.—Their presence and beauty made a great impression on the Bostonians.

There is a plantation for sale in Louisiana, the location of which is represented to be just below the "Devil's Elbow." It is thought to be rather a suspicious place.

An Odd Fellow, by the name of Oliver Cox, is advertised in the "Golden Rule," as an absconding defaulter. It is an odd affair that an odd fellow should be advertised by an organ of the order.

An improvement in the lien law, particularly interesting to mechanics, is before the Legislature of New York, and if the mechanics' interests are duly regarded, will be passed without delay.

Some of the Boston papers report that the streets in that city were recently in such bad condition that the people could not cross them, and consequently had to go round.

A Pittsburg paper speaks of a new rotary chair, calculated particularly for politicians; the occupant can, without inconvenience, turn himself in any direction.

Two young women lately set fire to a meeting-house in Boon County, Ky., because the church had refused to admit them as members. They should have been "taken in."

One thousand pies per day are imported to this city from Connecticut. They are generally esteemed superior to the city pies:—tarnation'd nice, if not more so.

Somebody says that a man at Troy is doing a smashing business, by allowing post-coaches to run over him, and then commencing suits for damages. He has cleared $1,700 in nine months.

A large copper-smelting establishment is to be erected at Chelsea, (opposite Boston) Mass. It is expected to obtain much of the ore from Lake Superior.

Some of the members of Congress insist on raising the duty on rags to 10 per cent. Their motive is probably to encourage the manufacture of rags in this country.

"Did you ever go to a military ball?" inquired a lively girl of an old soldier. "No, my dear," replied the old revolutionary, "in those days the military balls came to us."

Bills to incorporate the cities of Roxbury and Cambridge have passed the Massachusetts Legislature. Charlestown and Chelsea will next apply, and the five cities will appear in a cluster.

A man in Missouri, by the name of *Gunn*, lately effected double insurance on the goods in his *charge*, and becoming *half-cocked*, struck fire to his store, and then—*went off*.

A gentleman in Buffalo lately consulted a physician at Utica, by telegraph—described the disease and received prescriptions, as effectually as if he had been present.

An envious officer once remarked in the presence of George II., that Gen. Wolfe was *mad*. Then, replied the King, I wish he might bite some of the rest of my Generals.

A Western paper, alluding to the failure of the mails says that the editors in that region are left entirely to their wits. The predicament must have been distressing.

A country editor saw a thermometer about three weeks since, which stood 15 inches below zero. It is supposed to have been imported from the north of Greenland.

A beautiful operating model of the iron car represented on our first page, may be seen running on a circular railway, at Dr. Lewis's room, 87 Walker street.

Jackson, the "American Deer," ran over the Savannah course last week, against Gildersleeve. Jackson ran ten miles in less than fifty-eight minutes, and won the prize.

An avalanche of snow, frozen to a hard crust, slid from the roof of a house in Montreal, and buried seven children who were at play in the street below. Two of them were found dead.

No less than thirty persons are employed in the construction of the miniature model of New York. Every street, lane, garden, and building will be full represented in carved wood, in full colors.

There is said to be a remarkable spring about nine miles from New Haven, the water of which is from 7 to 15 degrees colder than that of ordinary springs.

New Hampshire has elected a Whig Governor, and a Whig majority in the Legislature, as a natural consequence of a re-action produced by certain measures in opposition to natural rights.

Ground Rents in North Market st., St. Louis, Mo., average from thirty-one to thirty-three dollars per square foot per year, the tenant paying taxes of every kind.

Much is said in Virginia on the subject of a *Clay statue*, to cost $6,000. We should think a wooden one would answer as well, unless the clay should be *well baked*.

A beautiful new boat for the Boston and Chelsea Ferry, has been built at Wilmington, Del., and is nearly completed.

A Boston toper claims as one great advantage gained by rum drinking, that his nose has become so red that he can see to read by it without a lamp

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For the Scientific American.

What need of Sorrow ?

Though tears of grief may dim the eyes,
And piteous sighs the bosom swell,
Though clouds of darkness round us rise,
And torture pours its tempest fell,
Yet, 'mid the direst woes that come,
And every plague, in every form,
In deepest grief, in darkest gloom,
We still may happy be.

Though Disappointment's swelling tide,
Its darkest, deadliest wave doth roll,
And keen Despair on every side,
Stands ready to o'erwhelm the soul.
Yet, 'mid the wreck of earth and heaven,
Though every kindred tie be riven,
And the last dregs of misery given—
We still may happy be. ELDA.

Forgive and Forget.

When streams of unkindness as bitter as gall,
Bubble up from the heart to the tongue,
And Meekness is writhing in torment and thrall,
By the hand of ingratitude wrung—
In the heat of injustice, unwept and unfair,
While the anguish is festering yet,
None, none but an angel of God can declare,
"I now can forgive and forget."

But if the bad spirit is chased from the heart,
And the lips are in penitence steeped,
With the wrong so repented the wrath will depart,
Though scorn on injustice were heaped;
For the best compensation is paid for all ill,
When the cheek with contrition is wet;
And every one feels it is possible still,
At once to forgive and forget.

To forget? It is hard for a man with a mind,
However his heart may forgive,
To blot out all perils and dangers behind,
And but for the future to live;
Then how shall it be? for at every turn,
Recollection the spirit will fret,
And the ashes of injury smoulder and burn,
Though we strive to forgive and forget.

Oh, hearken! my tongue shall the riddle unseal,
And mind shall be partner with heart,
While thee to thyself I bid conscience reveal,
And show thee how evil thou art;
Remember thy follies, thy sins, and thy crimes,
How vast is that infinite debt!
Yet Mercy has seven by seventy times
Been swift to forgive and forget.

Brood not on insults or injuries old,
For thou art injurious too—
Count not the sum till the total is told,
For thou art unkind and untrue:
And if all thy harms are forgotten, forgiven,
Now mercy with justice is met,
Oh, who would not gladly take lessons of Heaven,
And learn to forgive and forget?

Yes, yes, let a man when his enemy weeps,
Be quick to receive him a friend;
For thus on his head in kindness he heaps
Hot coals—to refine and amend;
And hearts that are christian more eagerly yearn,
As a nurse on her innocent pet,
Over lips that, once bitter, to penitence turn,
And whisper,—Forgive and forget.

Song of the Clouds.

A song for our home! our azure home!
Where, trackless as the winds, we roam;
Our flight how far—and our range how bright,
Borne, as we are, through streams of light!
We have our chambers richly graced,
Emerald hung and amber faced.
As the glorious orb of day retires,
We live in the flush of his purple fires;
And hail aloft in our fleecy cars,
The bright horned moon and her train of stars.

Over the vast blue vault we roll,
And span the heavens from pole to pole,
We gird but our sable garments on—
The skies are black and the sunlight's gone.
We give the young live thunder birth,
And dash the lightning down to earth.
'Tis ours to cast the dark grey gloom,
O'er the chiselled face of the church-yard tomb;
And shed an influence deep and chill,
Wherever we wish, and whenever we will.

Our robes we change with a master-hand,
Vary their hues, as our forms expand.
The rainbow's arched on our aisles of jet,
In our halls of mist its beauty set.
The music of a myriad spheres
In the midnight calm salutes the ears.
We never disperse, but our tints we fling
O'er the noblest object and meanest thing—
And mellow down the eye of day,
As we pass in the bloom of our beauty away.

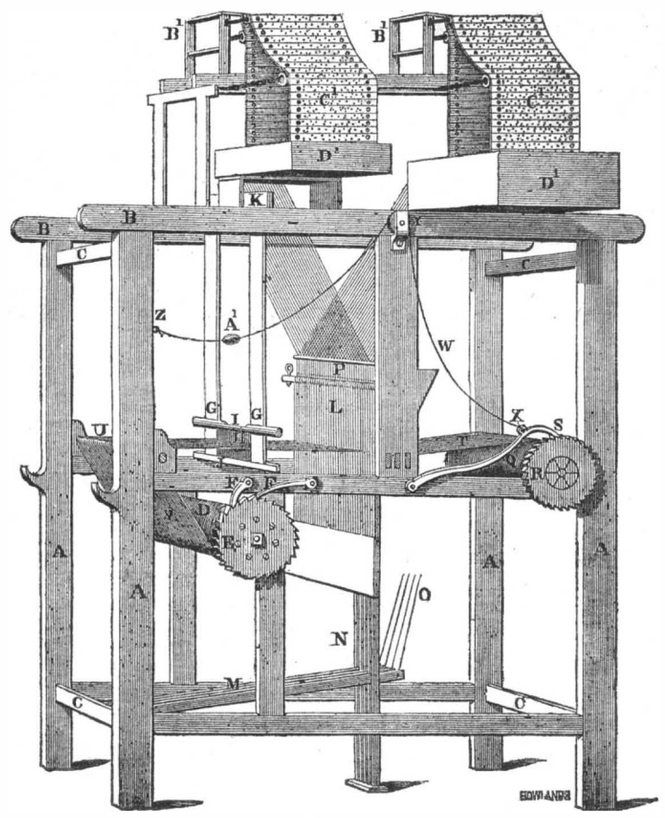
COINCIDNCE.—The following item, which we have clipped from a city paper, (whose columns are nearly equal to ours) has no other interesting peculiarity than that of a singular vertical space-way, which occurs by mere chance, on the left, and will be readily noticed.

'The Native American flag, which flies from the top of the hall, at the corner of ——— and Grand street, is sadly out of repair. It looks like a *shirt left on* a clothes line, until blown to shreds by the unpitying tempest. "Take that shattered ensign down, long has it waved on high," and roused from hearts all down below, the thrilling shout, hi, hi.'

ARRIVAL OF CAPTURED SLAVERS.—Within the last week, three vessels arrived, purporting to be slavers captured by American vessels; namely, the Portuguese ship Pons, at Philadelphia; the schooner Robert Wilson, captured by the U.S. ship Jamestown; and the Panther, captured by the Yorktown, both arrived at Charlestown, S. C.

AN IMPERIAL SCOTCH CARPET LOOM.

(From Gilroy's Art of Weaving.)



The frame of the loom consists of four perpendicular posts A A A A, with capes B B, and cross rolls C C C C, to hold them firm at suitable distances apart; these posts are generaly 6 feet 4½ inches in height; D is the cloth roller, which must be made of well-seasoned wood of 5½ inches in diameter, with an iron gudgeon of 3-4ths of an inch in diameter driven into each end of it, in the usual way; on one of these ends a ratchet wheel, E, is fastened, which is operated upon by two clicks, F F, for the purpose of holding the web in its proper place when wound upon the roller by the weaver; G G is the lay or batten; H the reed; I the upper shell to hold the reed; J the under shell or sill of the lay; K the rocking tree or cross-bar, which connects the lay swords G G above; L the harness, with double necking, connected to each of the Jacquard machines; M the treadles; N a rack or guide which serves to keep the treadles in their proper places; O treadle cords or wires which connect the treadles to their respective levers or lifter, in the usual way; P the harness board; Q the warp roller, with its ratchet wheel R, similarly fixed to that of the cloth roller D, and held in its place by the catch or dog S; T the warp yarn as it proceeds from the warp roller through thr harness L, and from thence into the reed H, where it is woven into cloth, then passes over the breast beam U, and on to the cloth roller D; V the cloth; W a strong cord, fastened to the catch or dog S at X, passing over the pulley Y, and attached to the loom frame at Z, on the right hand side of the loom, and convenient to the weaver's hand; on this cord a small wooden bob A^1 is fixed, which the weaver pulls when he finds it necessary to draw his bore or sink, and he winds the same length of cloth upon the cloth roller that he draws of warp from off the warp roller; B^1 B^1 Jacquard machines of the common description, mounted on the top of the loom in the usual way; C^1 C^1 the pattern cards, and D^1 D^1, two wooden boxes into which they drop when delivered from the cylinders.

Railroad Intelligence.

THE ERIE RAILROAD COMPANY have already contracted for 4000 tons of iron rails, to be manufactured in this country. The Directors have made arrangements for pushing the work ahead with vigor. The section between Middletown and the summit of Showangunk Ridge, is to be completed in the course of the ensuing summer.

A bill favorable to the extension of the Baltimore and Ohio railroad, to the Ohio River, has passed both houses of the Legislature of Virginia, and become a law.

In consequence of the late favorable arrangements between the Boston and Worcester and Western Railroads, the stock of the latter road has advanced to 99 1-2 per cent.

The location of the railroad from Boston, Mass., to Burlington, Vt., is decided to run through Fitchburg, Keene, N. H., Bellow's Fall, and Rutland, to Burlington.

Arrangements for the construction of the Concord and Portsmouth, N. H., road are steadily progressing. The amount requisite for commencing the road is already subscribed, though a small part of it is on certain conditions, which are not yet settled.

A proposition is before the city Councils of Philadelphia, contemplating a subscription of $2,000,000 to the stock of the Harrisburg and Pittsburg railroad.

There are 708 miles of railroad in New York, now in operation, which have been constructed at a cost of $17,710,580. The running expenses during the last year have been $1,166,269. The total income, during that time, has been $2,089,614—number of passengers 2,814,285.

NOTE.—We inserted, in our last number, a short article on the subject of railroads in Georgia, which should have been accredited to the Railroad Journal.

HOW WESTERN NEWS IS MANUFACTURED.—A newspaper reporter, in St. Louis, Missouri, after having *imbibed* rather freely, laid himself down in the office *sanctum*, when matter for a paragraph flitted across his stupified senses, and he dreamed that a span of beautiful "bays," harnessed to a carriage, in which were a matron and two lovely daughters, turned down Olive and Sixth street on a brisk trot, when the portly, flush-faced driver, evidently under the influence of liquor, pitched from his seat to the pavement below, instantly breaking his neck. The high-spirited horses, free from restraint, made furious speed for the river, on reaching which, sheering from a boat, the vehicle, with its precious contents, was capsized into the river. At this the reporter awoke, raised himself up, seized his pen, and wrote out full particulars of the above "Terrible Accident!"

A WILD MAN.—A wonderful account is given of the discovery of a monstrous wild man, in the swamps about the Arkansas and Missouri line.—His track is said to measure 22 inches; and his toes as long as a common man's fingers. We are of opinion that either the "wild man," or the man who raised the story, is a *great monkey*.

SHEEP KILLING DOGS!—Who ever heard of such a thing? Yet one of our exchanges, in sober earnest, speaks of catching sheep killing dogs, and gives particular directions how to do it. The sheep ought to be restrained.

Jumble.

Charles Spear, of Boston, proposes to open an office for the purpose of furnishing employment to discharged convicts.——A man in Plainfield was recently fined five dollars for writing on the margin of a newspaper which he mailed.——A whale was taken off Southampton last week, which was expected to furnish 25 barrels of oil.——A Western speculator said to a friend, "When I first came to Chicago, I had not a rag to my back; but now I have plenty of them."——A steam cotton factory, calculated for 10,000 spindles, is going up at Hartford, Ct.——Col. Crockett once said that popularity was like soap, it hardly stiffens before it goes back to lye and grease again."——The last case of absence of mind we have seen reported, is that of a ship carpenter, who bit off the end of a copper spike and drove a plug of tobacco in the vessel's bottom.——Sixty thousand wooden clocks were shipped to England last year, from the Eastern States.——A ditch is defined as a place where those who have taken too much wine are apt to find a little water.——A new portable stove is spoken off, which is worn in the boots, while a mustard plaster is placed in the hat, which draws the heat through the whole system.——A western railroad company advertises that all "necks" will be at the risk of the owners.——"I am often found at the table of the rich," said a coxcomb to a poor neighbor. "So is a calf's head," was the answer.——A butcher boy says that he has often heard of the *fore* quarters of the globe bat never heard any person say anything about the *hind* quarters.

Music.

PRINCETON HILL.—*A New March.*

AMERICAN MANUFACTURES.—In Waterbury, Ct., a machine is in operation, which only requires to be tended by a little girl, to turn out two barrels of pins per day, each barrel containing 4,000,000.—There is an axe factory at Collinsville, Ct., which employs 45 men, and turns out 800 axes per day. A button and pen manufactory, at Haydenville, Mass., employs 275 hands, and makes 1600 gross of buttons and 100 gross of steel pens per day.

NEW MAIL ARRANGEMENT.—A new arrangement has been effected by the Post Master General, by which a day's time is gained between this city and New Orleans. The Southern mail is closed here at half-past two, and at Philadeldhia at ten o'clock P. M., and proceeds without interruption, through to New Orleans.

THE STEAMSHIP PRESIDENT.—A report is going—or has gone—the rounds of the press, that a bottle has been picked up by a fisherman, containing a paper, from which the following broken sentences have been deciphered:

"Ship President.—We are blocked up in ice, and we can't live much time. . . . . Kind friends will acquaint . . . We are dying of hunger . . . . . I am fainting . . . . . If, if . . . "

The whole story looks as much like a hoax, as anything else.

Selected Articles.

LUMBER BUSINESS ON THE PENOBSCOT.—Rev. Mr. Drew of Augusta is publishing a series of interesting letters, descriptive of his observations during his recent visit to this city and vicinity. His last letter is dated at Orono, and his description of the cold weather is almost enough to turn one into an icicle.—We give the following extract, descriptive of the lumber interest of Orono:—

Lumbering is the business—almost the only business—of this place, and a great business it is indeed. Within half a mile of where I write, there are no less than 77 saws in Mills, besides 21 Lathes and 13 Shingle machines. The saws are not run in winter; but during the working season, we are told, each saw will cut on the average 800,000 feet of lumber—making no less than sixty-one millions, six hundred thousand feet per year! You may judge of the amount of *money* these mills bring into the place and vicinity by the sales of lumber. We know not how many laths, shingles and clap-boards are manufactured in connexion with the long lumber. But the business is immense, and brings a large sum into the village. These establishments give employment to six hundred men, in the woods, on the river and in mills, &c. We speak now of the small space of half a mile from this house. But this is far from telling the whole story about the lumbering business that centers at Bangor—for it all centers there and makes it what it is—the lumber city of America. Take Bangor as a centre and describe a circuit of only twelve miles, and you will find mills that contain 187 saws for the cutting of coarse lumber; with the attendant lath, shingle, and clapboard machines to compare. Doubtless, these mills send to Bangor wharves, one hundred and fifty millions of boards, joists, planks, &c., per year. All the mills up river, and on the tributary streams beyond the twelve miles I have described, send their lumber to Bangor for shipment. Of course these increase the above amount vastly. Is this not a reason why there should be a city at the head of navigation on this river—a river so clear as it is for vessels of any size to come to Bangor? Bangor must be a great place, and greater when the lumbering business is done with. She has a great agricultural region around her that must be improved as farms when the lumber is all gone, and this will be better for both country and city.

One would think that such an everlasting and universal slashing as is going on in the woods north of here, would very soon exhaust all the pine timber there is in the northern and eastern part of Maine; but we are told there is no danger of this for a great many years to come. Meanwhile large fortunes will be amassed to be squandered by posterity after the sources as well as the results of their fathers' wealth are dissipated.

RICHEST COPPER MINES IN THE WORLD.—Extract from a letter dated Eagle River, (Lake Superior,) Jan. 21st 1846. "We are now taking out a large amount of the silver rock, having struck it at the depth of 60 feet. The diggings have never looked so well since I have known them as at present, and I feel confident they will improve as we progress. I have now a party of men at work on the bluffs on a well defined vein of 40 feet in width. At Copper Falls they are in a fair way to astonish the world. Childs has struck a mass of native copper of his shaft, which extends across the shaft 10 feet, and is equeally large where it enters the rock as any part of the mass. He has sunk over 9 feet on the side of it without any appearance of coming to its termination in that direction. At the Pittsburg Company's work on the Bluffs they have a rich and well-defined vein. The North American Company have a good prospect. Their location takes the rich vein of the Pittsburg Company, in less than half a mile from the richest point on the vein. The vein on which Mr. Childs is at work (Copper Falls) has been traced on to the location belonging to the North Western Company, of Detroit. At Eagle Harbor the prospect is very flattering. There are not more than two or three locations, where they are at work, but what look well.

NEW MUSICAL INSTRUMENT.—We are informed that an ingenious Virginian has invented what is called an improvement in the violin, but which is played by keys, like a piano, and a crank, similar to a hand-organ. We have seen no specific description of the instrument, nor have we learned the address of the inventor: but would say, that should this meet his eye, he may probably learn something to his advantage by dropping us a line containing at least his address.

THAT GREAT ICE.—It was stated in the Portland papers that the Steamer Kennebec was forced through ice *eight* inches thick in her way out of Annapolis Bay. The N. Y. Tribune made it *eighteen* inches, and Corporal Streeter's Star made it the prodigious thickness of *eight feet*, through which the Kennebec forced her way. Of course 18 feet must appear in the next statement as the story progresses.

ELECTION OF POSTMASTERS.—A proposition has been introduced in Congress for so amending the Post Office laws that all deputy postmasters shall be elected by the inhabitants of the towns in which the post offices are located. The proposition appears to meet with the general approbation of the press, and were it not for the propensity of party Government, to use the power of appointment as a political engine, there would be no doubt that this important reform would be accomplished.

DISEASED POTATOES.—The N. O. Picayune speaks of the potatoes of Texas as being diseased with plethora,—a tendency to great corpulency.—They have been represented to weigh from ten to fifteen lbs. each.

MORE LUCK.—One of the compositors of the Cincinnat Times, recently received a letter containing a remittance, und information that he was heir to property and cash amounting to upwards of $10,000, on which he immediately dropped his stick like a hot potatoe and cleared. What lucky dogs those printers are.

THE VOICE OF NATURE.—The visible works of God speak to us with a commanding eloquence. The sun, the fountain of life, and heart of the world—that bright leader of the armies of heaven, enthroned in glorious majesty; the moon shining with a lustre borrowed from his beams; the stars glittering by night in the clear firmament; the air giving breath to all things that live and move; the interchanges of light and darkness; the course of the year, and the sweet vicissitudes of season; the rain and the dew descending from above, and the fruitfulness of the earth caused by them; the bow bent—by the hands of the Most High—which compasseth the heaven with a glorious circle; the awful voice of thunder, and the piercing power of lightning; the instincts of animals, and the qualities of vegetables and minerals; the great and wide sea, with its innumerable inhabitants:—all these instruct us in the mysteries of faith and the duties of morality.—*Ex. paper.*

FRUITS OF CHRISTIANITY.—It is quite common for designing men in Christian countries to harp upon what they call the evil fruits of Christianity, while in fact the evils they complain of result from the want of Christianity. It would be well for such persons to read the following statement of the Chinese statesman Ke-Ying, in reference to the influence of Christianity in the Chinese empire.

"The religion of your noble empire, engages men to that which is right and just, and prevents them from doing wrong. It is a true religion; it inspires men with noble sentiments. I will, therefore, urge the Emperor to permit the Chinese of the interior, who choose to do so, to adopt it without being punished as criminals." He said moreover, "For two hundred years that Christianism was permitted in China, the true Christians committed no crimes; but there were among them many persons who under the mask of that religion did much harm—they corrupted the women, deceived the sick, and did many kinds of wickedness; that was the reason Christianity was forbidden in the empire."

A MUTE BOY.—At an examination of a deaf and dumb institution some years ago in London, a little boy was asked, in writing, who made the world. He took the chalk and wrote underneath the words—"In the beginning, God created the heavens and the earth." The clergyman then inquired in a similar manner—Why did Jesus Christ come into the world?" A smile of gratitude rested on the countenence of the little fellow as he wrote—"This is a faithful saying, worthy of all acceptation, that Jesus Christ came into the world to save sinners."—A third was then proposed, evidently adapted to to call forth the most painful feelings into exercise—"Why were you born deaf and dumb when I can hear and speak?" Never, says an eye witness, shall I forget the look of resignation which sat upon his countenance, as he again took up the chalk and wrote—"Even so, Father, for so it seemed good in thy sight."—*Little's Living Age.*

SHOULD PARENTS SCOLD.—It has neither reason, religion, common sense, nor experience to recommend it. While there are reasons, many and mighty, to justify its total abolition. It sours the temper of the children, so that one thorough scolding prepares the way for two or three more. It sours your temper, provided it is sweet, which is a question, if you are prone to scold; and thus the more you will have to scold, because you have become crosser, and your children likewise. Scolding alienates the hearts of your children—depend upon it, they cannot love you as well after you have berated them as they did before. You may approach them with firmness and decision, you may punish them with severity adequate to the nature of their offences, and they will feel the justice of your conduct, and love you notwithstanding all. But they hate scolding. It stirs up the bad blood, while it discloses your weakness and lowers you in their esteem. Especially at night, when they are about to retire, their hearts should be melted and moulded with voices of kindness, that they may go to their slumbers with thoughts of love stealing around their souls, and whispering peace.—*Selected.*

INTERESTING FACT.—It is asserted that within the last six or seven years, the number of Jews in the Holy Land has increased from two to forty thousand! A mission has been established at Jerusalem by the London Society, and a church has been built upon Mount Zion. The book of common prayer has also been translated into Hebrew, and a missionary, a converted Jew, is stationed there; and "thus," observes a writer, "after a period of eighteen hunred years, the Psalms of David, in Hebrew, are again sung by a Hebrew Christian Church on Mount Zion, where they were first set to music by their inspired author, the sweet singer of Israel, three thousand years ago."

TREMENDOUS FRESHETS.—We have accounts from various directions, of an unprecedented swell of the rivers and small streams. At Philadelphia on Saturday, the water in the Schuylkill was seven feet above the top of the dam. near Fairmount, and the ground-floors of many houses were flooded.—The railroad near the Delaware was overflown. The turnpike and railroad between Harrisburg and Highspire, for a distance of six miles, was six feet under water: of course the trains could not pass. All the inhabitants of Cox's Island were taken off in boats. Many bridges and mills were swept away. At Albany the river rose six inches higher than in the great freshet of 1839. The people fled from their houses, the water being several feet deep in those on a level with the pier. Many of the streets were impassable, except in boats. Reports from New Jersey represent the freshet as terrific;—roads and houses flooded,—fences and bridges, and even large trees carried away by the running ice. But we cannot give more particulars at present.

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State Convention.

STATE OF NEW YORK, ss.—We, the Secretary of State, the Comptroller, and the Treasurer of the said State, having formed a Board of State Canvassers, and having, in conformity to the provisions of the act entitled "An act recommending a Convention of the People of the State," passed May 13, 1845, canvassed and estimated the whole number of votes or ballots given for and against the said proposed "Convention" at a General Election, held in the said State on the fourth day of November, in the year 1845, according to the certified statements of the said votes or ballots received by the Secretary of State in the manner directed by the said act, do hereby *determine*, *declare*, and *certify*, that the whole number of votes or ballots given under, and by virtue of the said act, was two hundred and forty-seven thousand, one hundred and seventeen; that of the said number, two hundred and thirteen thousand, two hundred and fifty-seven votes or ballots were given for the said Convention: That of the said first mentioned number, thirty-three thousand, eight hundred and sixty votes or ballots were given against the said Convention: And it appearing "by the said canvass that a majority of the votes or ballots given as aforesaid, are for a Convention," the said canvassers do farther *certify* and *declare*, that a Convention of the People of the said State will be called accordingly; and that an election for Delegatas to the said Convention will be held on the last Tuesday of April, in the year 1846, to meet in Convention at the Capitol in the City of Albany, on the first Monday in June, 1846, pursuant to the provisions of the aforesaid act of the Legislature.

Given under our hands, at the Secretary of State's Office, in the City of Albany, the twenty-sixth day of November in the year of our Lord one thousand eight hundred and forty-five.

N. S. BENTON, Secretary of State.
A. C. FLAGG, Comptroller.
BENJ. ENOS, Treasurer.

State of New York, Secretary's Office.—I certify the preceding to be a true copy of an original certificate of the Board of State Canvassers on file in this office.

Given under my hand and seal of office, at the City of Albany, the twenty-sixth day of November, in the year of our Lord one thousand eight hundred and forty-five.

N. S. BENTON, Secretary of State.

STATE OF NEW YORK, Secretary's Office, Albany, January 28th, 1846.

To the Sheriff of the County of New York—*Sir*:—Notice is hereby given, that pursuant to the provisions of the act entitled "An act recommending a Convention of the People of this State, passed May 13, 1845, an election will be held on the last Tuesday of April next, in the several cities and counties of this State, to choose Delegates to the Convention to be held pursuant to the provisions of the aforesaid act and the certificate above recited.

The number of Delegates to be chosen in the County of New York will be the same as the number of Members of Assembly from the said county.

Respectfully yours,
N. S. BENTON, Secretary of State.

Sheriff's Office, New York, February 7, 1846.

The above is published pursuant to the notice of the Secretary of State, and the requirements of the statute in such case made and provided for. WM. JONES,
Sheriff of the City and County of New York.

☞ All the public newspapers in the county will publish the above once in each week until election, and then hand in their bills for advertising the same, so that they may be laid before the Board of Supervisors and passed for payment.

See Revised Statutes, vol. I, chap. vi, title 3d, article 3d—part 1st, page 140. march 18 t E.

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Just received—Linen bosom shirts with linen collars and wristbands—warranted—at 62 cents, 75 cents, 87 cents, $1, $1,25, $1,50, $1,75, $2. Also linen collars at 4 cents, 6 cents, 12 1-2 cents, 18 3-4 cents, and 25 cents.

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Dec. 2. C. W. BUTLER.

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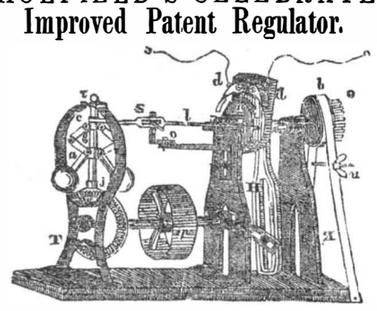

N. SCHOLFIELD, Norwich, Conn., continues to manufacture, and keeps constantly on hand, his Improved Patent Regulatore, for water-wheels and steam engines; he makes five different sizes, indicated by numbers comencing at the largest size, which is called No. 1, &c..

They are built in a neat and compact form,and printed directions accompany each machine, which will enable any mechanic to put them in operation; as a general rule the different numbers are adapted to different sized wheels, as follows;

For over-shot or breast wheels, 3 feet buckets, No. 5; 5 or 6 feet buckets, No. 4; 6 to 10 feet buckets, No. 3; 8 to 15 feet buckets, No. 2; 12 to 20 ft. buckets, No. 1; greater than 20 feet, No. 1 extra.

The following agencies have been established for the sale of these machines:—Jones, Denney & Ward, Boston; V. J. Bates & Co., Providence, R. I.; Charles Schenck, New York city; D. Wight & Son, Troy, N. Y.; R.M. Vansickler, Albany, N.Y.; S.C. Bemis, Springfield, Mass.; Denslow & Beach, Hartford, Conn.; Joseph B. Hughes, Philadelphia; Wells Chase, and Towner Dunlap & Co.; Baltimore.

N. Scholfield also builds to order Bacon's Improved Pickers, a superior article for cotton or wool.

Norwich Conn., Feb. 14. f15eowtf.

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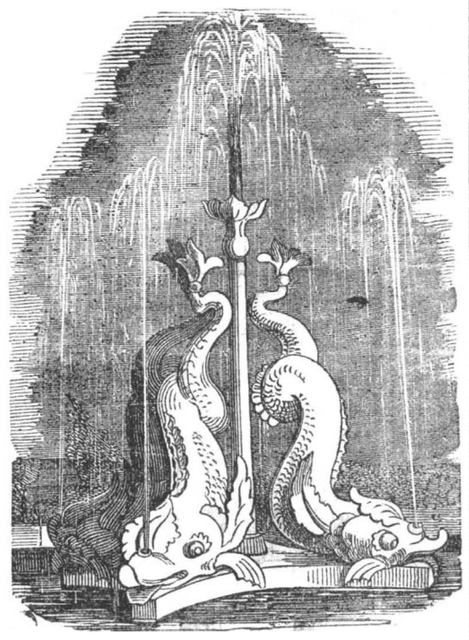

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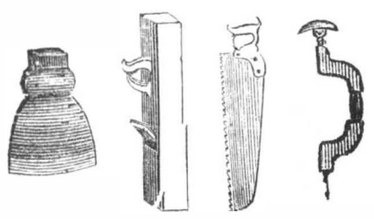

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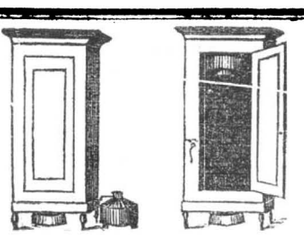

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